



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,300	04/23/2001	Yuefeng Liu	6502.0333	3107
60667	7590	07/26/2006	EXAMINER	
NGUYEN, PHUONGCHAU BA				
ART UNIT		PAPER NUMBER		
2616				

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/839,300	LIU, YUEFENG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Phuongchau Ba Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 May 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-16 and 37 is/are allowed.
- 6) Claim(s) 17-32 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5-8-06.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

*Claim Rejections – 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 17–26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed subject matter “computer readable medium” is directed toward a software program per se. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process. In contest, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory.

Claims 17–22 that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic

field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. Applicant is directed to specification page 19, line 22 to page 20, line 4, which discloses computer readable media as a carrier wave. See O 'Reilly v. Morse, 56 U.S. (15 How.) 62, 112-14 (1853). However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature. See O 'Reilly, 56 U.S. at 114-19; In re Breslow, 616 F.2d 516, 519-21, 205 USPQ 221, 225-26 (CCPA 1980).

See MPEP 2106 (b)-(c).

*Claim Rejections – 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 27-28, 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stai (6,401,128) in view of Rene Salle (US 20020013848 A1).

Regarding claims 27 and 32, Stai (6,401,128) discloses System and method for sending and receiving frames between a public device and a private device. In Stai, *a method for communicating between a first private network* (network at port 110A–fig.1) *and a second private network* (network at port 110E, fig.1) *configured from nodes* (NL–port 110A–110E, fig.1) *in a public network infrastructure* (public network 100–fig.1), *comprising*:

*means for receiving a non-tunneled packet from a source node in the first private network*, see column 2, lines 2–10;

*means for determining whether the packet* (from node in network at NL port 110a–fig.1) *is destined for the second private network* (in the network at NL port 110a, fig.1), see column 4, lines 8–29;

(1) *means for obtaining an address mapping corresponding to the destination node* (col.4, lines 30–38); and

(2) *means for sending the packet over a channel* (bidirectional arrow, fig.1) *to the destination node using the address mapping, the address mapping reflecting a relationship between* (a) *an internal address for the destination node for use in communicating among nodes in the second private network* (col.4, lines 39–54) and (b) *an external address for the destination node suitable for communicating over the public network infrastructure* (col.5, line 62–col.6, line 33).

Stai discloses all the claimed limitations, except (1) *acquiring a channel key associated with a channel based on the determination.*

However, in the same field of endeavor, Rene Salle (US 20020013848 A1) discloses generating session keys for the secure channel, see 0047 (corresponding to (1)). Therefore, it would have been obvious to an artisan to apply Rene Salle's teaching to Stai's system with the motivation being to provide a secure communication between networks.

Regarding claims 28 and 33, Stai discloses when the data packet sending from an end-station 11E-fig.1 to a FL port 105-fig.1, the packet is encapsulated (corresponding to *adding external address*) for transmission to a destination node 106a in the public network 102-fig.1 through the private loop 108, see column 4, line 39-col.5, line 15.

5. Claims 29–31, 34–36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stai (6,401,128) in view of Rene Salle (US 20020013848 A1) as applied to claims 27 and 32 above, and further in view of Satyanarayanan (6,662,192)

Regarding claims 29 and 34, Stai discloses all the claimed limitations, except (1) *encrypting the packet.*

However, in the same field of endeavor, Satyanarayanan (6,662,192) discloses encrypting key to all data in transit (fig.2, step 196)(corresponding to

(1)). Therefore, it would have been obvious to an artisan to apply

Satyanarayanan's teaching to Stai's system with the motivation being to provide secured data being accessed with authorization.

Regarding claims 30 and 35, Stai discloses all the claimed limitations, except

*(1) means for accessing the address mapping based on a determination that the packet is destined for the second private network.*

However, in the same field of endeavor, Satyanarayanan (6,662,198) discloses server database node 12 for mapping the destination of packet of network A to network B, see fig.15 (corresponding to (1)). Therefore, it would have been obvious to an artisan to apply Satyananrayanan's teaching to Stai's system with the motivation being to prevent unauthorized access to files and data which must remain segregated between private networks.

Regarding claimd 31 and 36, Stai discloses all the claimed limitations, except

(1) *determining whether an address mapping exists for a destination address in the packet.*

However, in the same field of endeavor, Satyanarayanan discloses the received packet being determined for access or denial, see col.11, lines 6-17 & 47-63, as if authorized, address is existed for indicating the authorization—emphasis added. Therefore, it would have been obvious to an artisan to apply Satyanarayanan's teaching to Stai's system with the motivation being to provide access to data to only authorized users.

*Allowable Subject Matter*

6. Claims 1-16, 37 allowed over the prior art.

*Response to Arguments*

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/839,300  
Art Unit: 2616

Page 10

  
Phuongchau Ba Nguyen  
Examiner  
Art Unit 2616

  
Chau T. Nguyen  
CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600